RETIREMENT PATTERNS OF DOCTORS

A REVIEW OF THE LITERATURE

A REPORT FOR THE MEDICAL WORKFORCE STANDING ADVISORY COMMITTEE

James Buchan

Fiona O'May

Queen Margaret College
Edinburgh

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1. INTRODUCTION

This paper was commissioned by The Medical Workforce Standing Advisory Committee (MWSAC) in February 1996. The focus of the paper, as set out in the MWSAC terms of reference, was to examine existing research for quantitative and qualitative information on retirement patterns in the medical profession. Retirement patterns in the profession appear to have been changing in recent years with an increase in early retirement. Any such changes have implications for workforce planning and the estimation of future "inflow" and "outflow" from the medical workforce.

The specific terms of reference were to conduct a desk study to examine existing research in relation to:

- doctors' intention regarding retirement

- doctors' actual behaviour ie age of retirement or partial retirement

- changes in pattern of working as doctors approach and enter their fifties

- intentions, and actual behaviour, with respect to working after retirement

Subsequent discussion with the Secretariat of MWSAC confirmed that the focus was on publicly available research literature.

The terms of reference stated that the review should encompass doctors in general practice; hospital and community health service consultants; and doctors in other career grades. Researchers were also invited to consider ways in which further information could be obtained "bearing in mind the need to avoid imposing a form filling burden on the NHS".

The timescale of the desk study required that the report be delivered by 20 March 1996, giving approximately six working weeks elapsed time between commissioning and completing the study.

This tight timescale inevitably placed some restrictions on obtaining "difficult to get" publications, particularly those from non-UK sources. The two main sources of research literature reviewed in the paper are therefore published papers in UK refereed journals, and "one off" published or publicly available reports on aspects of doctors' working patterns and retirement behaviour. The review was based on literature searches, using "key words" on on-line and CD-ROM databases, supplemented by 'manual' searches in relevant libraries. (Full details given in Appendix 1).

The remainder of this paper is in three sections, with two appendices:

Section 2 summarises the relevance to workforce planning of information on early retirement in the medical workforce

Section 3 reports on research which has focused explicitly on retirement patterns and age related issues in the medical profession, or gave some consideration to age related issues in a broader based research context.

Section 4 discusses some ways of obtaining further data to fill current "information gaps" in relation to retirement patterns in the medical profession.

Appendix 1 highlights the methods used to obtain the literature reviewed in the paper.

Appendix 2 lists some "difficult-to-get" papers, which were identified but not obtained within the available time period.

2. PATTERN OF RETIREMENT IN THE MEDICAL WORKFORCE: THE WORKFORCE PLANNING CONTEXT

This section is in three parts:-

2.1 Highlights the implications of retirement patterns for medical workforce planning

2.2 Reports on general trends in patterns of retirement

2.3 Considers the main issues requiring examination

2.1 Medical Workforce Planning and Retirement

The Report of the Second Advisory Committee on Medical Manpower Planning (DHSS 1988) considered retirement patterns. It concluded:

"Most hospital medical staff retire at or before the age of 65, but doctors in General Medical Services have until now had no fixed retirement age. We have calculated the distribution of the ages of retirement of consultants and of GPs for the periods 1978-83 and 1983-86 and this is set out in the table below. It can be seen that GPs have been tending to retire earlier than in the past; there is still a proportion who stay on well beyond the age of 65, but less than 10 per cent are still practising at the age of 70.

Age in years by which % retire

	10% years	50% years	90% years
A. Consultants			
1978-1983	59.6	64.4	65.9
1983-1986	59.5	64.4	66.0
B. Unrestricted Principals			
1978-1983	60.0	64.9	70.5
1983-1986	60.0	64.8	68.8

Source: DHSS, 1988.

ACCMP I assumed that retirement ages for doctors who worked beyond 65 would fall steadily until by the year 2000 all doctors retired at 65. It was pointed out that many hospital consultants already retire well before 65 and that the average age of retirement might fall still further if few GPs were to continue to work beyond 65".

The first report of the Medical Manpower Standing Advisory Committee (now MWSAC) published in 1992, noted:

"Although we received anecdotal evidence of an increase in doctors' propensity to retire earlier, we have found no statistical evidence to point towards markedly lower retirement ages. We propose to obtain more detailed information on retirement patterns in order to revisit this issue in our next report. As an interim measure for our modelling we have assumed that the average retirement age will be one year less than at present during 1990-2000 and two years less during 2000-2010".

(MWSAC, 1992, para 8.24)

The report also highlighted the need for a clear distinction being made between "leavers" from the medical career structure and transfers between different branches of medicine. The second report of MWSAC, published in 1995, noted that for modelling purposes "we assume that current trends towards earlier retirement will continue at a moderate pace, with retirements one year earlier during 1993-2000 than in the late eighties and two years earlier in 2001-2010" (MWSAC, 1995, para 6.14).

Table 2.1 gives current age distribution for two of the key groups in the workforce.

TABLE 2.1 Age Distribution, Hospital Consultants and GP Unrestricted Principals (Headcount, England) (% Distribution)

			AGE					
			<45	**45-49**	**50-54**	**55-59**	**60-64**	**65+**
CONSULTANTS	Sep 1994	**M**	40	22	16	14	7	1
		F	54	19	13	9	4	<1
GP PRINCIPALS	Apr 1995	**M**	49	19	14	11	6	2
		F	68	14	9	6	2	<1

Source: Department of Health, England.

The issue of early retirement from the medical profession, and the impact this may have on workforce planning has most recently been highlighted in a report prepared by the British Medical Association (BMA, 1996). The BMA has argued that there has been "a significant reduction in the number of general practitioners choosing to work beyond the age of 60". The BMA noted that the new GP contract in 1990 had introduced a compulsory retirement age of 70 for general practitioners and that changes to the NHS superannuation scheme in 1995 would allow a doctor to retire from the age of 50, with an abated pension. The BMA concluded that it was "too early" to assess the effect of the new provisions, but that this would "inevitably reduce the workforce in the future".

The data presented in the BMA report was drawn from Department of Health and Review Body sources, and from the Joint Workload Surveys conducted by the

Department of Health and the General Medical Services Committee (GMSC). The data for Great Britain showed:

- a reduction in the number of unrestricted principals in general practice aged 60+, from 3,134 in 1988 to 1,910 in 1994

- an increase in the 45-55 age group in the same period, from 7,180 in 1988 to 9,180 in 1994

- increases in the number of unrestricted principals working reduced time commitments (ie three quarters contract, half contract, job share) from 1,650 in 1990 to 3,250 in 1994

- a general increase in the average GMS hours worked by unrestricted principals, irrespective of age and sex, between 1985/6 and 1989/90.

2.2 General Patterns of Retirement in the UK Labour Market

An understanding of the extent and nature of retirement patterns in the medical profession continues to be a prerequisite for workforce planning and determining future intakes to the profession. Various factors are acting on retirement trends in general labour markets which highlight the need to monitor changes in retirement behaviour in the medical workforce. These factors include:

i) **Societal/Cultural Attitudes and General Labour Market Behaviour in Relation to Retirement Patterns**

A recent study of "older" workers in various sectors of the economy (Incomes Data Services, 1996) noted that "early retirement is becoming the norm". The participation rate of older workers (particularly men) in the labour market has been falling for some years. In 1975 a total of 94% of men aged 55-59 were in jobs or looking for work, compared to 74% in 1994 (General Household Survey). In contrast, participation rates of women have not exhibited the same pattern of decline (See Table 2.2)

TABLE 2.2: Change in Economic Activity Rates 1975-1994

	1975	**1981**	**1985**	**1991**	**1993**	**1994**
Men:	%	%	%	%	%	%
55-59	94	90	82	79	76	74
60-64	84	73	53	52	51	50
65+	16	11	8	8	7	9
Married women:*						
55-59	49 (62)	54 (61)	50 (51)	55 (55)	56 (53)	53 (59)
60-64	26 (34)	21 (23)	20 (16)	25 (23)	22 (19)	25 (26)
65+	6 (6)	5 (4)	4 (2)	5 (2)	4 (2)	5 (3)

* The rates for non-married women are shown in brackets

Source: General Household Survey (taken from IDS, 1996)

Older workers (ie those aged 50+) are also more likely to work part time and to be self employed than younger workers (IDS, 1996, p2).

Concern about age based discrimination and employment practices in relation to older workers has heightened with the growth in the number of older workers in the economy. Research commissioned by the Institute of

Personnel Development (IPD, 1993) indicated that older workers were regarded as "more effective, but less adaptable" than younger workers. The IPD has subsequently produced a statement on Age and Employment designed to promote "age-free" recruitment and employment policies. Several countries (eg USA, Canada, Australia) already have specific age legislation designed to protect older workers from discrimination but some of these countries (eg USA) also report a decline in the average age of retirement (Department of Education and Employment, 1994). These general considerations of age related discrimination in the UK have also been raised in relation to doctors' career patterns (Forster, 1993).

Research on patterns of early retirement in relation to pensions provision suggest that "Generous early retirement terms will naturally facilitate early retirement" (Incomes Data Services, 1993). These case studies, conducted across a variety of sectors of employment, have revealed a generally high level of early retirement (as defined by an employee ceasing to be an active member of an occupational pension scheme and beginning to draw a pension at an age younger than the normal pension age (NPA) for the scheme). The study reports more than half of retirals in BP, Norwich Union, Royal Bank of Scotland, Imperial Tobacco and Du Pont were aged less than 55.

The general pattern of retirement revealed by these studies is a trend towards early retirement across most industries and occupations. This is often related to the use of early pension provision to induce retirement and is a result of

organisational change and restructuring of services which has implications for staffing levels and profile. This trend is most pronounced in relation to male manual and white collar workers, the other trend is towards 'partial' retirement, as older workers reduce their hours of work and 'phase' into retirement.

The extent to which these general labour market trends, and accompanying changes in attitude towards retirement are mirrored in the medical professional has not been explored in any of the research reviewed in this paper. It is, however, clear that early retirement is becoming more commonplace and "acceptable" in many occupations. One factor which may be of relevance in individual cases in the medical workforce is that where there is a 'dual career' household, the retirement or early retirement of the non-medical partner may lead to similar behaviour on the part of the doctor, inducing him/her to also consider early retirement.

ii) **Pensions Legislation/Employment Legislation**

Changes in pension legislation, relating to age of normal retirement and changes in employment legislation relating to older workers may have an impact on retirement patterns. The BMA (1996) has argued that recent changes in NHS pension provision may lead to more doctors taking early retirement.

iii) **Organisational Factors**

Changes in employment policy and employment conditions can have an effect on retirement behaviour of individuals and groups of employees. In relation to the employment of medical staff in the National Health Service, a number of organisational factors have been highlighted by commentators as impacting directly or indirectly on patterns of withdrawal from employment and retirement (although often the link has only been inferred or is based on anecdotal information). The introduction of compulsory retirement at 70 for general practitioners and change in provision for early retirement and pension entitlement in the NHS occupational pension scheme are two factors which have directly affected patterns of retirement. Others that may have an indirect effect are changes in job satisfaction, and perceptions of the comparative benefits of different career options. These in turn may be related to the introduction of new employment policies in the NHS (eg the new contract for general practitioners in 1990; the 'New Deal' for hospital doctors) and to other forms of organisational change. Whilst many articles in the medical and general press report on the relationship between such factors and changes in the job satisfaction and working patterns of individual doctors (eg Handysides, 1994; McBride and Metcalfe, 1995; Ham, 1996) there is little research based evidence in this area. This is partly a result of the comparatively recent implementation of some of the NHS reform led changes in employment policy and the transitional nature of the related organisational change.

iv) **Demographic Factors in the Medical Workforce**

Changes in the profile of the medical workforce, other than the aforementioned 'ageing' of the workforce, may also contribute to changes in patterns of retirement. One factor is the increasing proportion of women entering the medical workforce and working in the younger age cohorts of the work force. To the extent that their working patterns and retirement behaviour are distinct from male doctors, there will be changes in the overall patterns of retirement from the workforce.

These factors may all affect patterns of retirement and early retirement in the NHS medical workforce. It is easier to identify them than to quantify their individual or aggregate effect. What is clear is that there have been indications of an increase in early retirement in some areas of the medical workforce, that greater numbers of doctors are entering the age cohorts in which voluntary early retirement becomes a possible option, and that the trend in the labour market in general in recent years has been towards increased early retirement.

2.3 Summary and Future Retirement Patterns

In relation to the impact of the factors listed above, and the terms of reference of this paper, it is apparent that a clear understanding of retirement patterns in the medical workforce is an important element in estimating future staffing requirements. General trends in the economy point to an uptake of early retirement in many occupations. A number of questions require answers if a detailed overview of the current, and intended future working patterns (and

therefore the likely patterns of retirement) of doctors is to be established. These questions include:-

- what is the current retirement/early retirement pattern by age, gender and area of work? What have been recent trends in this pattern?

- what are the "destinations" of early retirers (ie do they move to other forms of full or part time employment, are they moving abroad etc)?

- what are the reasons underlying early retirement (ie to what extent are these voluntary or involuntary; and related to positive or negative retention or "push" factors in the organisation). To what extent are these reasons open to organisational intervention and control if so desired?

- what are the future retirement plans and current perceptions of career options of the large cohorts of doctors now approaching or entering the optimal age groups for early retirement (ie the 45-55 age cohorts)? Do these plans and perceptions, at aggregate level, signal any significant overall changes in the likely patterns of retirement and early retirement?

The next section of this paper will review the limited research based evidence which may assist in answering these questions.

3. RESEARCH ON DOCTORS' RETIREMENT PATTERNS

This section is in four parts.

3.1 discusses research primarily focusing on doctors' retirement patterns and plans

3.2 highlights broader based research on doctors' careers which provides relevant contextual information

3.3 reports on non-UK research which has examined doctors' retirement patterns

3.4 provides a summary

3.1 Doctors' Retirement Patterns

The review identified only two UK research papers which had focused primarily on doctors' retirement patterns.

Smith (1980) examined retirement patterns and plans of consultant anaesthetists in Yorkshire. A postal questionnaire (one reminder) was distributed to "all consultant anaesthetists in Yorkshire". Details of sample and response rate are not given in the paper, which was based on an analysis of 86 replies. The study was undertaken to identify the scope of early retirement and attitude to retirement. The study found that 40% of respondents intended retiring at, or before, 60 years of age. Of 32 factors reported by the consultant anaesthetists as influencing retirement, the two most commonly expressed were "retirement depends on financial/family reasons" (29 responses) and "desire for opportunity to do other things" (17 responses). Responses are

reported in relation to age distribution, but the small sample size prevents detailed analysis. The author refers to unpublished data from Scotland, England and Wales that "only 70-80%" of consultant anaesthetists who "might have been expected to reach" the age of 65 in post had done so, because of early retirement.

Wakeford, Roden and Rothman (1986) examined general practitioners retirement plans and factors influencing them. The study, published by the King Edward Hospital Fund for London, examined the retirement intentions of a national sample of general practitioners "approaching conventional retirement age (or who had passed this)". Unusually, the study was based primarily on the use of a telephone survey of 250 general practitioners aged 55+. The random sample was generated by drawing names from the Medical Directory, assuming that the age of doctors on qualification was 23. Any subjects so identified who were aged less than 55 or were not in general practice were replaced by other subjects who met the sample criteria. The telephone survey was supplemented by face to face interviews with 25 "older" (65+) general practitioners. The telephone survey had a response rate of 79% (197 interviewees); average age of respondents was 61.4. Limited demographic details of respondents are presented in the report, but there is no regional breakdown, gender information or previous career history details.

In relation to retirement plans, Wakeford et al found that only 55% of respondents could indicate an intended retirement age (average intended

retirement age of this group was 65.1 years). More than half the sample (56%) indicated they planned some gradual form of retirement, mainly by "24 hour retirement". (NOTE: this is no longer an option). More than three quarters of the sample (78%) reported that they would be entitled to full pension on retirement.

Respondents were also asked to indicate which factors would tend to influence them to retire earlier or later. Results are listed below. Job satisfaction (or lack of it) was the main reported determining factor.

"What do you see as being the major factors which would tend to influence you to retire earlier rather than later?"

Lack of job satisfaction	42%
Poor health	19%
Not keeping abreast/not providing good service	11%
To pursue other interests	8%
Other	4%
Family	2%
Changes in the law affecting pensions/retirement	1%
No answer	34%

Source: Wakeford et al, 1986

"What do you see as being the major factors which might tend to influence you to retire later rather than earlier?"

Job satisfaction	55%
Needed by patients	15%
Money	13%
Encouraged to stay by partners	5%
Health	4%
Giving good service	3%
Other	2%
No other interests	1%
No answer	34%

Source: Wakeford et al, 1986

Wakeford et al developed a typology of general practitioner retirement intentions:

i) Those who have 'had enough' and want to retire early/soon ("want out soon")

ii) Those who will continue working for some time but their break their ties completely when they do retire("clean break")

iii) Those who want retirement to be gradual, phase over a period of time ("gradual")

iv) Those who never want to retire ("never")

On the basis of the responses to their surveys, the pattern of responses was classified as follows:

Classification of Retirement Intention, by Age

Classification of Retirement Intention (see text)	Present Age 55-60	61-65	66+	All Respondents
Want out soon	1%	6%	0%	3%
Clean break	46%	42%	9%	38%
Gradual	49%	42%	57%	48%
Never	4%	10%	34%	11%
	100%	100%	100%	100%
n =	81	73	35	189

Source: Wakeford et al, 1986

The results of these two studies are of only marginal relevance to the terms of reference of this paper. Both predate the implementation of significant legislative and organisational change in the NHS, and the study by Smith is small scale and regional in focus. The review did not identify any more recent published research which had focused primarily on doctors' retirement patterns.

3.2 Doctors Careers and Work Experience

There have been a number of studies of doctors' careers and work experience published in the last ten years which have contextual relevance to the terms of reference of this paper. These studies tend to fall into one of two categories - they focus on career patterns and career choice, or they examine aspects of job satisfaction and work related stress.

In the former category, there have been a number of large scale studies examining national sample populations (eg Allen 1988, 1994; Buchan and Stock, 1990) or "following up" cohorts - notably the work of the Medical Careers Research Group in Oxford (eg Parkhouse and Ellin, 1988; Parkhouse and Ellin 1990).

The Oxford studies provide a valuable insight into the career choice and career determinants of cohorts of doctors who qualified from British medical schools in certain years (the 'oldest' cohort being 1974). These cohorts are now entering middle age, and, as the authors noted, in 1988 "A survey of our respondents in 10 or 20 years time would perhaps yield much useful information about job satisfaction among the middle aged doctors in our society" (Parkhouse and Ellin 1988). The continuation of the Oxford work would, in time, produce valuable information on retirement patterns and future retirement intentions; as yet, the cohorts under examination have not reached optimal age for early retirement.

The 'one off' surveys of populations (general practitioners have been most commonly surveyed) can also give some insight into age related factors in the sample population, in relation to hours worked, changes in attitudes and opinions to work related factors and other demographic characteristics. Allen (1988) examined random samples of equal numbers of men and women who had qualified from British medical schools in 1966, 1976 and 1981. The average age of the (oldest) cohort was approximately 43 at the time of the study, somewhat 'young' for the requirements of mapping early retirement patterns. A follow up study by Allen (1994) contacted qualifiers from 1976 and 1981, along with a new cohort from 1986. The prime focus of the research was the effect of the increasing proportion of women entrants to the medical workforce. The earliest cohort (1966 qualifiers), which could have provided valuable information on retirement patterns at the time of the follow up survey, were not included in the study. "We decided with the Department of Health to drop the 1966 qualifiers from the follow up studies. It was agreed that the costs involved in following them up might not justify their inclusion in relation to the amount of new material which would be generated" (Allen, 1994, p4).

This focus on "younger" cohorts (see also Buchan and Stock, 1990) is valid in terms of meeting the specific requirements of research studies examining patterns of entry and early career decisions in the medical workforce, but it severely limits the utility of such studies (one-off or follow-up) in any examination of retirement patterns.

The second major focus of research studies has been in relation to aspects of job satisfaction. General practitioners have tended to be the group most often researched in recent years. These studies normally apply one or more validated research instruments to the sample population to examine levels of job satisfaction and/or work related stress. Where an age related variable has been considered, these studies may give some insight into factors related to retirement behaviour.

Calnan and Corney (1994) examined changes in job satisfaction amongst general practitioners between 1984 and 1990 based on a 1990 "follow up" survey of a sub sample of a national cohort studied in 1984. Calnan and Corney found a general drop in job satisfaction in the sample. The 1990 follow up survey only examined the sub sample of 598 general practitioners from the 1984 study who had remained in general practice (as such, 169 (20%) who had retired and 19 (2%) who had left general practice were not studied). The authors found that "job satisfaction was positively associated with age ie the older the doctor the more satisfied he/she was". As the study only focused on general practitioners remaining in practice, this result may be at least partially explained by a "survivor effect" ie those least satisfied may have retired early or moved to other jobs/careers. The authors found that this age effect "seemed to remain the same" in both the 1984 and 1990 surveys.

Kirwan and Armstrong (1995) surveyed 295 general practitioners in Northamptonshire using the "Maslach burnout inventory". The authors sought

to examine the extent of burnout (defined as "increased workload and stress, poorer mental health and reduced job satisfaction) on the sample population. Response rate was 83%. Age was one of the variables investigated in the study. The authors found that burnout did not decrease among older general practitioners. Whilst the authors suggested this might be linked to increasing pressures and stresses on younger doctors, the "survivor effect" may also be a factor.

Baker, Williams and Petchey (1995) investigated the 'pool' of vocationally trained doctors not currently working as principals in general practice, to identify reasons for non participation and prospects for re-entry. The study was based on an identified sample of 351 possible subjects in Trent Regional Health Authority, identified through an process of 'networking'. The authors caution that this means that results obtained apply only to respondents and cannot be extrapolated. Questionnaires were sent to the 351 subjects; overall response was 251 (72%) of which 166 questionnaires were used for analysis. Only 16 of the total sample (10%) were aged 45-68, the remainder being in younger age groups. Whilst 60% of respondents were women, only one quarter of this older group were women. Most important indicated reasons for not working as principals were "out of hours commitments", "difficulty in combining work with family commitments", "requirements of the new GP contract", and "increasing demand from patients".

3.3 Non-UK Research

Non-UK research focusing on doctors retirement patterns and age-related issues is of marginal relevance to this review. Differences in legal, organisational and social factors make it difficult to cross-compare such studies (eg there is no legal retirement age for doctors in the USA), and they may therefore be of greater relevance in relation to methods used than results presented.

Three recent published studies examining aspects of retirement patterns were identified and reviewed (others which were identified but not obtained within the available time are listed in Appendix 2).

Sanmartin and Snidal (1993) presented a brief report of a survey of all physicians licensed to practice medicine in Canada. A total of 52,422 questionnaires were distributed, with a response rate of 74%. The survey, undertaken on behalf of the Canadian Medical Association, was designed "to determine the supply, mix and distribution of physicians in Canada". The postal survey was used to identify participation rates in employment, average hours worked per week, specialist qualifications, geographical distribution and location of training. The survey was conducted in 1990, and was a repeat of physician surveys conducted in 1982 and 1986.

The paper noted that "ageing and retirement will affect specialty groups (eg general surgery and obstetrics/gynaecology) in the near future". The survey

found that most female doctors working part time were aged less than 45, whilst most male doctors working part time were aged over 54 years of age. A total of 5% of all active physicians were classified as "semi retired", the average age of this sub-group was 68.6 years of age.

Greenfield (1994) reports on a postal survey of members of the American Surgical Association (ASA) "to examine attitudes and practices with respect to retirement". The survey population comprised 882 senior members of the ASA; response rate was 75%. Federal law in the United States prohibits mandatory retirement and one of the issues examined in the study was to obtain opinions on what factors should determine cessation from performing operations.

More than half the survey respondents (412) were aged 60+; of this age group, one third were retired and a further one in ten reported working "reduced activity". Most respondents did not think that age should be the main criteria for retirement from operating; peer review and "onset of physical disability" were the most favoured options.

Deitch et al (1995) report on a survey of members of the American College of Radiologists, designed "to determine what demographic, professional and practice characteristics are related ... to their plans for retirement". The survey was conducted in 1990. A postal questionnaire was sent to a national stratified

random sample of 2,804 radiologists, radiation oncologists and nuclear medicine specialists (Three reminders sent). Response rate was 69%.

In total, 46% of respondents reported intending to retire at a specific age (average intended age for retirement reported as 61); 41% reported intending to work part-time (average intended age for change being 57) and a further 9% reported intending to make a career change (average age of intended change being 53). The study also reported that "the hours worked by full time radiologists increased with age until the ages of 40-45 years, peaked at about the age of 42 years and then decreased somewhat. Radiologists aged 50-55 years worked approximately two thirds of an hour per week less than those a decade younger. Full time radiologists aged 60-65 years worked about two hours less per week than did those aged 50-55 years".

In relation to intentions on retirement the researchers expressed a caveat - that retirement age may vary as different cohorts reach retirement, and therefore the reliability of stated intentions will weaken as the number of years to retirement increases.

3.4 Summary

The review identified only two published research studies which took as their central focus the examination of aspects of retirement patterns in the UK medical workforce. One was regionally based, both were published more than

a decade ago. The methods used may warrant some consideration, the results of the studies are not useful for future modelling purposes.

The review also highlighted that a number of cohort and "one off" surveys of sample populations within the medical workforce provided relevant contextual information. The restrictions on the utility of these studies for the purposes of this review is that the cohort studies have often tended to focus on 'younger' populations; where one-off surveys have included samples of 'older' doctors, these have often been small in size. The other limitation, common to all such surveys, is that the groups of central interest to this review (those retiring, or having taken early retirement) are the most difficult to 'capture', using standard survey techniques. The "non practising" sub sample is often too small for analysis and/or may be unrepresentative.

4. CONCLUSIONS AND DISCUSSION ON METHODS OF OBTAINING FURTHER DATA.

The research literature reviewed in this paper has highlighted a number of approaches to examining issues related to retirement patterns of doctors. It is evident that the results of the various studies do not provide sufficient up-to-date data on which to inform in any detail the workforce planning process.

The studies which most explicitly address the issues of retirement patterns and retirement intentions are either UK based, but out of date, or are based on non-UK sample populations. Their relevance is primarily as possible models for future work rather than because of the current utility of results they have generated.

'Official' census data provides current age profile in different specialisms, and some information on leaving rates. The main current information 'gaps' are in relation to retirement intentions, status on retirement (ie are "early retirers", also "potential returners") and the likelihood of changing trends and patterns of retirement in the future. One key issue for future work will be the extent to which these trends and patterns vary between male and female doctors.

Retirement intentions have been examined by questionnaire surveys of populations - either random stratified samples, or selected samples (ie those in age groups about to enter pre-retirement age groups). The main limitations of these studies have been that they are one-off 'snapshots' surveys; this approach would be more beneficial if a

cohort was followed over a period of time, tracking retirement behaviour in relation to previously expressed retirement intentions. The cohorts followed in the Oxford studies have not yet reached optimum age for early retirement, but would in the future provide such a sample population.

Post retirement "behaviour" and reasons for retiring have been partially addressed by some surveys which have included sub samples of "non practising" doctors. The key issue in such studies is the means and methods used to identify and profile the "non practising" group. Studies either tend to rely on a sample drawn from professional registration or medical association records (which by definition are less likely to contain records of those non-practitioners who have most firmly decided to 'leave' the profession) or utilise various networking processes to 'snowball' information on current status and location of individuals to be surveyed. The latter approach can be helpful in providing more names of leavers but there is uncertainty about the representativeness of the sample that is generated by such methods.

Taking into account the request that any consideration of filling information gaps should "bear in mind the need to avoid imposing a form filling burden on the NHS", it is suggested that a number of actions could be considered. Listed in increasing level of implications for additional work, these are:

a) "building in" to any proposed cohort surveys, questions relating to retirement plans (age of retirement, post retirement status, factors influencing retirement) and verification of post retirement status for older age groups (the

Oxford cohort studies already include some questions on future retirement intentions). This would allow exploration of changing attitudes over time to intended age of retirement and retirement plans.

b) an exploration of what data could be routinely collected from pension provision information, to assist in identifying numerical trends and patterns of retirement

c) if feasible, and deemed necessary, a sample survey (possibly based on a population drawn from (b) above), to explore in more detail post-retirement plans and attitudes of doctors taking early retirement form NHS work, eg are they paralleling this change in status with maintained or increased non-NHS medical work?

d) if deemed necessary, a targeted sample survey, aimed at doctors currently aged 45-65, to explore retirement plans, post retirement intentions and current patterns of working. This could be a one-off survey, or could be followed up in future years to verify results and identify trends in patterns of retirement

In any of the above studies, it would be important to ensure the inclusion of sufficient sized sub-samples of male and female doctors, and doctors in different medical specialisms, to enable differences in trends and patterns of retirement behaviour to be identified.

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APPENDIX 1

Searches were conducted using on-line databases, FirstSearch, ASSIA and SSCI. The following CD-ROM databases were also searched: Medline, Psyclit, Cinahl, RCN and BMJ/Lancet. Key words used in the searches were as follows:

retirement/early retirement; retirement patterns/trends; workforce planning; age profiles; job satisfaction; burnout; careers; stress; turnover; wastage; doctor; consultant; community health consultant; general practitioner; physician; registrar; hospital doctor; medical staff/profession.

Supplementary manual searches were conducted in the following libraries:

Queen Margaret College, Edinburgh

The Erskine Medical Library, University of Edinburgh

Management Development Group, Scottish Health Service Centre, Edinburgh

The Institute for Employment Studies, University of Sussex

King's Fund, London

APPENDIX 2

The following references were identified, but not obtained within the given time period:

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